FLUID CHARGING MECHANISM FOR BALLOON CATHETER SYSTEM

ABSTRACT

In general, the invention is directed to a balloon catheter system for intra-luminal or intra-cavity pressure measurements. In accordance with the invention, the balloon catheter system provides a closed fluid charging mechanism to charge and discharge a balloon mounted on the catheter. More particularly, the charging mechanism may include a closed reservoir, a passage, and an actuator that acts to drive fluid out of the reservoir and through the passage. A lumen within a catheter may transport fluid from the passage to charge the balloon. The pressure monitoring catheter system may take pressure measurements when the balloon is charged. Discharging the balloon may include withdrawing the actuator from the charging mechanism, which fills the reservoir with fluid from the balloon. In addition, a seal member may be used in the pressure monitoring catheter system to provide a more sealed environment for holding and transporting fluid.